ABSTRACT OF THE DISCLOSURE

An angular position sensor includes a rotating part (14) which creates a variable magnetic flux, a fixed part (16) for supporting two probes (22, 26) each having an output current, the first (22) of the probes having an output current having discontinuities when the magnetic flux passes through zero, the second (26) of the probes being subjected to a second magnetic flux, shifted by 90° relative to the first flux and having an output current that is a continuous function of the magnetic flux, and a device (30) for adding the currents from the two probes. The range of variation of the current from the first probe (22) is slightly larger than the range of variation of the current from the sensor is applicable to engine camshafts.